

Appl. No. 09/704,187
Amdt. Dated October 5, 2004
Reply to Office action of July 8, 2004

REMARKS/ARGUMENTS

Claims 1-52 are pending in the present application.

This Amendment is in response to the Office Action mailed July 8, 2004. In the Office Action, the Examiner rejected claims 2, 3, 7, 8, 9, 12, 14, 15, 19-21, 24, 26, 27, 31-33, 36-52 under 35 U.S.C. §112; and claims 4-6, 10, 13, 16-18, 22, 25, 28-30, 34, 37, 40-42, 46, 49, 51, 52 under 35 U.S.C. §103(a). Applicant has amended claims 1, 12, 13, 15, 20, 24, 25, 27, 36, 37, 48, 49, 50, 51, and 52. Reconsideration in light of the amendments and remarks made herein is respectfully requested.

Rejection Under 35 U.S.C. § 112

In the Office Action, the Examiner rejected claims 2, 3, 7, 8, 12, 14, 15, 19-21, 24, 26, 27, 31-33, 36-52 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

1. Claim 37:

i. The Examiner states that the source from which the real-time packets come is not clear. Applicant respectfully directs the Examiner to the Specification, page 6, lines 5 which states that "[a] network that is transmitting information is a source network". To clarify the claim language, however, claim 37 has been amended.

ii. The Examiner states that the purpose for which the processor processes the real-time packets is not clear. However, there is no "processor" recited in claim 37. Applicant assumes that the Examiner meant "firewall". With this assumption, Applicant respectfully disagrees. There is no requirement in 35 USC §112, second paragraph that the purpose of an element has to be recited relative to other elements. The 35 USC §112, second paragraph regarding the requirement for definiteness focuses mainly on whether the claims meets the threshold requirement of clarity and precision, not whether more suitable language or modes of expression are available. MPEP 2173.02. Furthermore, definiteness of claim languages must be analyzed, not in a vacuum, but in light of (A) the content of the particular application disclosure, (B) the teachings of the prior art, and (C) the claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made. MPEP

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21730.2. Here the claim contains language that is clear and precise. Processing real-time packets include a number of operations. At least two operations are recited in claim 37, namely, specifying a filter characteristic and filtering a packet. The Examiner failed to explain why a purpose or goal of an element is necessary for clarity and precision. Furthermore, the Examiner failed to explain why a person of ordinary skill in the art could not interpret the metes and bounds of the claim so as to understand how to avoid infringement.

2. Claims 49, 51, and 52: Applicant has amended claim 49, 51, and 52 to correct minor informalities.

3. Claims 7, 19, 31, and 43: The Examiner states that the ultimate goal for which the rejected packet is sent to an application firewall is not clear. However, as discussed above in connection with claim 37, there is no requirement in 35 USC §112, second paragraph that the purpose or goal of an element has to be recited.

4. Claims 12, 24, 36, and 48: Applicants has amended claims 12, 24, 36, and 48 to correct minor informalities. Regarding the purpose for which the matched packet is routed to the modifier, please refer to the above.

5. Claims 20, 21, 32, and 33: Applicant has amended claims 20 and 32 to correct minor informalities.

6. Claims 2, 3, 8-9, 14, 15, 20-21, 26, 27, 32-33, 38, 39, 44-45, and 50: The Examiner states that the purpose for which the modification to the accepted packet is not clear. As discussed above, there is no requirement in 35 USC §112, second paragraph that the purpose or goal of an element has to be recited.

Applicant respectfully requests that the Examiner withdraw the rejection of claims 2, 3, 7, 8, 9, 12, 14, 15, 19-21, 24, 26, 27, 31-33, 36-52 under 35 U.S.C. § 112, second paragraph.

Rejection Under 35 U.S.C. § 103

In the Office Action, the Examiner rejected claims 1-52 under 35 U.S.C. §103(a). Applicant respectfully traverses the rejection and contends that the Examiner has not met the burden of establishing a *prima facie* case of obviousness. As the Examiner is aware, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally

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available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *MPEP* §2143, p. 2100-129 (8th Ed., rev. 2, May 2004). Applicant respectfully contends that there is no suggestion or motivation to combine their teachings, and thus no *prima facie* case of obviousness has been established.

1. Claims 1, 4-6, 10, 16-18, 22, 25, 38-30, 34, 37, 40-42, 46, 49, 51, and 52:

a) Claims 1, 13, 25, 37, and 49:

In the Office Action, the Examiner rejected claims 1, 13, 25, 37, and 49 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,631,466 issued to Chopra et al. ("Chopra") in view of U.S. Patent No. 6,606,596 issued to Zirngibl et al. ("Zirngibl") and U.S. Patent No. 6,701,366 issued to Kallas et al. ("Kallas"). Applicant respectfully disagrees for the following reasons.

Chopra discloses a parallel string pattern searches in respective ones of array of nanocomputers. Firewalls and packet filtering routers attempt to prevent unauthorized access by carefully examining each packet and properly routing or dropping each packet depending on the packet's characteristics (Chopra, col. 1, lines 42-45). Most firewalls and packet filtering routers are implemented using a set of packet filtering rules (Chopra, col. 1, lines 45-47).

Zirngibl discloses a system and method for the creation and automatic deployment of personalized, dynamic and interactive voice services, including deployment through digital sound files. A call receiver module enables the call server to receive calls and routes the incoming calls to a security module (Zirngibl, col. 26, lines 31-33). The security module authenticates the incoming calls using login ID's and passwords, and identifies the caller using speech recognition and pattern matching (Zirngibl, col. 26, lines 37-44).

Kallas discloses providing communications services. A call server may be coupled to a network to manage the establishment, management, and termination of communications sessions between terminals coupled to the network (Kallas, col. 4, lines 56-59). The call server accesses a subscriber directory to locate and route calls to users (Kallas, col. 4, lines 66; col. 5, line 1).

Chopra, Zirngibl, and Kallas, taken alone or in combination, do not disclose: (1) a controller specifying a filtering characteristic based on a control protocol from a call server

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serving a firewall between a source network and a destination network, and (2) a filter to filter a packet based on the filtering characteristic.

Chopra merely discloses that packet filtering is normally performed on packet headers (Chopra, col. 1, lines 53-58). The information provided by the Transport Control Protocol (TCP) and the Internet Protocol (IP) is not the control protocol from a call server serving a firewall. It is merely the information for routing the packet.

Zirngibl merely discloses enabling a call server to route the incoming calls to a security module. The security module is not a firewall. It merely authenticates the incoming calls using login ID's and passwords. It does not provide a filtering characteristic based on a control protocol.

Kallas merely discloses a call server accessing a subscriber directory. Kallas does not disclose control protocol, a firewall, a filtering characteristic, and a filter. A call server accessing a subscriber directory does not serve a firewall between a source network and a destination network.

Accordingly, Applicant requests the rejections of claims 1, 13, 25, 37, and 49, and their respective dependent claims under 35 U.S.C. §103(a) be withdrawn.

b) Claims 4, (51), 5, (52), 16, 17, 28, 29, 40, and 41:

The Examiner further states that Chopra's source network or destination network is either a private or a public network. Applicant respectfully disagrees. Chopra is discussed and analyzed above. In addition, Chopra merely discloses a local area network coupled to the global internet (Chopra, col. 3, lines 25-26). Chopra does not identify a source network and a destination network, a call server and a firewall, and their relationship. Since Chopra does not identify these components, Chopra does not disclose that the source or destination network is either a private or public network.

c) Claims 6, 10, 18, 22, 30, 34, 42, and 46:

The Examiner states that Chopra's filtering characteristic is one of (1) a traffic characteristics, (2) a network address, and (3) a port identifier corresponding to the call. Applicant respectfully disagree.

Chopra is discussed and analyzed above. In addition, Chopra merely discloses that each packet filtering rule specifies a particular packet filtering policy (Chopra, col. 1, lines 47-48).

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Packet filtering is normally performed on packet headers (Chopra, col. 1, lines 52-57). Since a packet header only contains information on the packet, it cannot contain information on traffic characteristics.

The Examiner refers to Ogdon, paragraph 13. However, there is no paragraph 13 in Ogdon. Furthermore, Ogdon merely discloses using multiple networks to provide a presentation. There are no filtering characteristics.

2. Claims 7, 12, 19, 24, 31, 36, 43, and 48:

Claims 7, 12, 19, 24, 31, 36, 43, and 48 are rejected under 35 U.S.C. §103(a) as being unpatentable Chopra, Zirngibl, Kallas as applied against claims 1, 13, 25, 37, 49 above and further in view of U.S. Patent No. 6, 496,935 issued to Fink ("Fink"). Applicant respectfully disagrees for the following reasons.

Chopra, Zirngibl, and Kallas are discussed and analyzed as above. Fink discloses a system, device and method for rapid packet filtering and processing. A packet is received by a pre-filtering module (Fink, col. 9, lines 21-22). If an entry for the packet is not found in a table of connections, then the packet is forwarded to the firewall for handling (Fink, col. 9, lines 56-59).

a) Claims 7, 19, 31, and 43:

The Examiner states that Fink teaches that the rejected packet is sent to a firewall. Applicant respectfully disagrees. Fink does not disclose or suggest that the rejected packet is sent to a firewall. An entry for a packet not being found in a table of connections does not mean that the packet is rejected. It simply means that there is no connection for the packet.

b) Claims 12, 24, 36, and 48:

The Examiner states that Fink teaches extracting a packet characteristic, matching the packet characteristic with the filtering characteristic, and routing the packet to the modifier of the packet characteristic matches the filtering characteristic. Applicant respectfully disagrees. Fink merely discloses that an analysis module extracts and compares the contents of the analyzed packets to the rules in a rule base, not to the filtering characteristic based on a control protocol. Furthermore, Fink merely discloses routing the packet to destination, not to a modifier.

3. Claims 11, 23, 35, and 47:

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Claims 11, 23, 35, and 47 are rejected under 35 U.S.C. §103(a) as being unpatentable over Chopra, Zirngibl, Kallas as applied to claims 1, 13, 25, 37 above, and further in view of U.S. Patent No. 6,456,596 issued to Kaplan et al. ("Kaplan") or U.S. Patent No. 6,611,863 issued to Banginwar ("Banginwar"). Applicant respectfully disagrees.

Chopra, Zirngibl, and Kallas are discussed and analyzed above. Kaplan discloses a multi-protocol communications routing optimization. A switching system may be configured to a high speed digital link via a T1 interface, to a local area network (LAN) via a LAN interface, to a wide area network (WAN) via a WAN interface, to a local loop in a plain old telephone system (POTS) via a POTS interface, and to a wireless communication network via a wireless interface (Kaplan, col. 3, lines 62-67; col. 4, lines 1-3). Kaplan claims that at least one of the interfaces utilizes a media gateway control protocol.

Banginwar discloses an automatic device assignment through programmable device discovery for policy based network management. Policy server may send or distribute policies to various device proxies using a common protocol, including the COPS (Common Open Policy Service) protocol (Banginwar, Detailed Description Text, paragraph 5).

Kaplan and/or Banginwar does not disclose or suggest using the protocol as part of a filtering policy in a firewall. These protocols are merely used for routing optimization or network management.

4. Claims 2, 3, 8, 14, 15, 20, 26, 27, 32, 38, 39, 44, and 50:

Claims 2, 3, 8, 14, 15, 20, 25, 27, 32, 38, 39, 44, and 50 are rejected under 35 U.S.C. §103(a) as being unpatentable over Chopra, Zirngibl, Kallas as applied against claims 1, 13, 25, 37, 49 and further in view of U.S. Patent No. 5,835,725 issued to Shwed ("Shwed"). Applicant respectfully disagrees for the following reasons.

Chopra, Zirngibl, and Kallas are discussed and analyzed above. Shwed discloses a system for securing the flow of and selectively modifying packets in a computer network. A packet filter module determines whether a packet is rejected or accepted. If rejected, the packet is dropped. If accepted, the packet may be modified by encryption, decryption, and address translation (Shwed, col. 13, lines 21-25). Encryption, decryption, and address translation are not modifying actions based on the control protocol. Furthermore, these operations are not equivalent to port swapping and/or protocol conversion.

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5. Claims 9, 21, 33, and 45:

Claims 9, 21, 33, and 45 are rejected under 35 U.S.C. §103(a) as being unpatentable over Chopra, Zirngibl, Kallas, Shwed as applied against claims 8, 20, 32, and 44 above, and further in view of U.S. Patent No. 6,580,717 issued to Higuchi ("Higuchi") or U.S. Patent No. 6,690,669 issued to Tsuchiya et al. ("Tsuchiya"). Applicant respectfully disagrees for the following reasons.

Chopra, Zirngibl, Kallas, and Shwed are discussed and analyzed above. Higuchi discloses a packet communication method and apparatus and a recording medium storing a packet communication program. A protocol conversion control module is provided between an IPv4 protocol control module and a LAN control module both for the LAN control function (Higuchi, col. 2, lines 32-35). The protocol conversion control module converts the IPv4 packet to the IPv6 packet and outputs it to the LAN control module (Higuchi, col. 2, lines 39-45). Tsuchiya discloses a communicating method between IPV4 terminal and IPV6 terminal and IPV4-IPV6 converting apparatus. An IPv4-IPv6 converting apparatus is located between an IPv4 network and an IPv6 network and realizes a communication between an IPv4 terminal and an IPv6 terminal by performing an IP header conversion of an IPv4 packet and an IPv6 packet (Tsuchiya, col. 5, lines 52-56). Higuchi and/or Tsuchiya does not disclose or suggest the conversion of the IPv4 packet to the IPv6 packet taking place as a modifying action after the packet is accepted.

In summary, Chopra, Zirngibl, Chopra, Kallas, Ogdon, Fink, Kaplan, Banginwar, Shwed, Higuchi, and Tsuchiya, taken alone or in any combination, does not disclose, suggest, or render obvious a controller to specify a filtering characteristic based on a control protocol from a call server serving a firewall between a source network and a destination network; and a filter coupled to the controller to filter a packet in a call transmitted from the source network based on the filtering characteristic, the filter accepting the packet if the packet satisfies the filtering characteristic and rejecting the packet otherwise. There is no motivation to combine Chopra, Zirngibl, Chopra, Kallas, Ogdon, Fink, Kaplan, Banginwar, Shwed, Higuchi, and Tsuchiya because none of them addresses the problem of filtering a packet using filtering characteristic specified by a controller based on a control protocol. Chopra, read as a whole, does not suggest the desirability of specifying a filtering characteristic based on such a control protocol.

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Therefore, Applicant believes that independent claims 1, 13, 25, 37, 49, and their respective dependent claims are distinguishable over the cited prior art references. Accordingly, Applicant respectfully requests the rejections under 35 U.S.C. §112 and 35 U.S.C. §103(a) be withdrawn.

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Conclusion

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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